What is claimed is:

1. A curved surface for use in molding applications comprising:

a substrate, wherein said substrate is substantially transparent to a radiation source, said substrate having a coating with a curved surface, where the curved surface is used as the mold surface and is formed by:

a.) depositing a radiation-curable deposit on a first surface of the substrate; and

b.) the deposit is developed, selectively, by passing radiation through said substrate's second surface, opposite the first surface, the radiation entering into the deposit resulting in developed deposit and undeveloped deposit, and where the curved surface is the surface of the developed deposit away from the subtrate surface.

2. A curved surface for use in molding applications comprising:
a substrate, wherein said substrate is substantially transparent to a radiation source, said substrate having a curved surface, where the curved surface is used as the mold surface and is formed by:

a.) depositing a radiation-curable deposit on a first surface of the substrate; and

b.) the deposit is developed, selectively, by passing the radiation through said substrate's second surface, opposite the first surface, the radiation entering into the deposit resulting in developed deposit and undeveloped deposit, the developed deposit forming a desired curved surface; and .

c.) the developed deposit is etched to form a mirror of the desired curved surface in the substrate resulting in the curved surface substrate.

3. A method comprising the steps of: a.) depositing a radiation-curable material onto at least one surface of a lens mold blank or lens mold insert blank; and b.)

curing the radiation-curable material under conditions suitable to form an optical quality molding surface having optical characteristics on at least one surface of the radiation-curable material.

4. The method of claim 3, wherein curing further comprises modulating radiation.

5. The method of claim 4, wherein the modulating is carried out by using a mask, using an adaptive mirror, using spatial modulation, or using a discrete array of mirrors.

6. The method of claim 4, wherein the modulation is carried out using a gray-scale mask.

7. The method of claim 3, wherein the radiation-curable material is a urethane acrylate, a cycloaliphatic epoxy, a polyurethane oligomer, a hydrogenated bis-phenol A epoxy, a poly(norbornene) epoxy, or a combination thereof.

8. The method of claim 4, wherein the radiation-curable material is a urethane acrylate, a cycloaliphatic epoxy, a polyurethane oligomer, a hydrogenated bis-phenol A epoxy, a poly(norbornene) epoxy, or a combination thereof.

9. The method of claim 6, wherein the radiation-curable material is a urethane acrylate, a cycloaliphatic epoxy, a polyurethane oligomer, a hydrogenated bis-phenol A epoxy, a poly(norbornene) epoxy, or a combination thereof.

10. The method of claim 4, wherein curing is carried out using light at about 100 to about 800 nm.

11. The method of claim 6, wherein curing is carried out using light at about 100 to about 800 nm.

12. A method comprising the steps of: a.) depositing a radiation-curable material onto at least one surface of a lens mold blank or lens mold insert blank; b.) curing the radiation-curable material under conditions suitable to form an optical quality molding surface having optical characteristics on at least one surface of the radiation-curable material; and c.) coating the optical quality surface.